



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/624,072	07/24/2000	Tetsuhiko Hirata	520.38794X00	5012
20457	7590	12/02/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP			MOORE, IAN N	
1300 NORTH SEVENTEENTH STREET			ART UNIT	
SUITE 1800			PAPER NUMBER	
ARLINGTON, VA 22209-9889			2661	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/624,072

Applicant(s)

HIRATA ET AL.

Examiner

Ian N Moore

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 30 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-11 is/are rejected.
- 7) ☒ Claim(s) 4 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This is in response to amendment filed on 7-30-2004.
2. Claims 1-3, and 5-7 are moot in view of the new ground(s) of rejection.
3. Claims 8-11 are rejected for the same ground of rejection.

Claim Objections

4. Claim 1-4,9 and 12 are objected to because of the following informalities: Appropriate correction is required.

Claim 1 recites, "the mobile station" in line 8, line 11, and page 3 lines 2. For clarity and consistency, it is suggested to modify as "the **moved** mobile station" in order to be consistent with previously recited "the **moved** mobile station" in line 7.

Claims 2-3 are also objected for the same reason as stated above claim 1.

Claim 4 recites, "the mobile station" in line 15, 17, 18, and other applicable areas. For clarity and consistency, it is suggested to modify as "the **moved** mobile station" in order to be consistent with previously recited "the **moved** mobile station" in line 14.

Claim 9 recites, "a mobile station" in line 2. For clarity and consistency, it is suggested to modify as "**the** mobile station" since it refers back to "a mobile station" recited in claim 8, line 8.

Claim 12 recites, "a mobile station" in line 13. For clarity and consistency, it is suggested to modify as "**the** mobile station" since it refers back to "a mobile station" recited in line 6. Claim 12 also recites, "said mobile station" in page 10, line 7. For clarity

Art Unit: 2661

and consistency, it is suggested to modify as “**the** mobile station” in order to be consistent.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites, “a base station controller” in line 2. It is unclear whether this “a base station controller” is the same as “a base station controller” in line 1.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1,2,5, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mustajarvi (U.S. 6,661,782) in view of La Porta (U.S. 6,654,359).

Regarding claim 1, Mustajarvi discloses a mobile IP network system (see FIG. 1, GPRS architectural network is the mobile IP network; see col. 2, lines 1-2) comprising:

a plurality of radio access networks (see FIG. 1, Radio Access Networks, RA1 and RA2) each connected to mobile stations via radio links (see FIG. 1, RA1 and RA2 connect to mobile stations via BTSs; note that each radio network connects to plurality of mobile stations); and

an IP network (see FIG. 1, GPRS backbone 13 with IP; see col. 2, lines 1-3) to which a plurality of packet nodes (see FIG. 1, SGSN1 and SGSN2) for transferring IP packets are connected,

wherein each of the radio access networks has at least one base station controller (see FIG. 1, BSC1 or BSC2) and at least one radio base station (see FIG. 1, BTS1 or BTS2) which is connected to the base station controller to perform radio communications with a plurality of mobile stations (see col. 7, lines 51 to col. 8, lines 33; note that each BSC performs radio communications with plurality of mobile stations), and

wherein each of the base station controllers in the radio access network (see FIG. 1, BSC1 and BSC2 in RNs) is connected to the plurality of packet nodes (see FIG. 1, SGSN1 and SGSN2; see col. 8, lines 1-6; note that BSC1/BSC2 can connect to plurality of SGSNs) through a network (see FIG. 1, a network of MSCs, SGSNs, BSCs; see col. 7, lines 50-65), receives an identifier of a previous packet node (see FIG. 1, SGSN1) from another base station controller (see FIG. 1, BSC1 from RA1) when one of the mobile stations moved into a control area of the base station controller (see FIG. 1, MS moves to a control area of BSC2/SGSN2 of RA2) form a control area of the another base station controller (see FIG. 1, from a control area of BSC1/SGSN1; col. 9, lines 29-34; when MS moves from RA1 to RA2,

Art Unit: 2661

the identifier of old BS1/SGSN1 (i.e. routing node/area ID) is received at RN2; col. 10, lines 1-15),

selects a preliminarily designated specific packet node (see FIG. 3, new SGSN2) in accordance with a communication state of the moved mobile station (see FIG. 1, sine MS moves from RA1 to designated RA2, SGSN 2 must be selected; see col. 9, lines 29-34), thereby to selectively carryout IP packet communication for the mobile station between the base station controller and the specific packet node using an identifier of a new logical connection (see col. 10, lines 50-58) established between the specific packet node and the mobile station depending on the communication state of the mobile station (see FIG. 3, step 9, note that IP packets transmission is performed by utilizing the updated/established a new logical link with a new TLLI, logical Link identity for IP packet transmission for mobile station via BSC/SGSN between a new SGSN 2 and the mobile station; see col. 10, lines 50-58).

Mustajarvi does not explicitly discloses selecting the previous packet node in accordance with a communication state of the moved mobile station, thereby to carryout IP packet communication for the mobile station between the controller and the previous node using a previous identifier of a logical connection having been established between the previous node and the mobile station. However, above mentioned limitations are well known in the art. In particular, La Porta'359 discloses an IP network (see FIG. 2, Internet 100) to which a plurality of nodes for transferring IP packets (see FIG. 2, Root router 150, R4-R6; see col. 7, lines 63 to col. 8, lines 41); selecting the previous packet node (see FIG. 2, Domain 1, Router 150) in accordance with a communication state of the moved mobile

Art Unit: 2661

station (see FIG. 2, after MD 114 moves into destination/selected domain 2), thereby to carryout IP packet communication for the mobile station between the station (see FIG. 2, BS8) and the previous node (see FIG. 2, Root router 150) using a previous identifier of a logical connection (see col. 9, lines 10-15; use of existing IP address and tunnel) having been established between the previous node and the mobile station (see FIG. 3, step 180 and 182; see col. 3, lines 1-3; see col. 10, lines 45-67; note the mobile device selectively/exclusively uses the earlier/previous logical connection with COA and tunneling which has been established between router 150 and the mobile station). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize earlier/previous logical connection with COA and tunneling, as taught by La Porta'359 in the system of Mustajarvi, so that it would will reduce the disruption during handoff and reduce the amount of control traffic by utilizing the existing logical connection with COA; see col. 2, lines 15-25; see B col. 10, line 19-35.

Regarding claim 8, Mustajarvi discloses a base station controller (see FIG. 1, BSC2) for a radio access network (see FIG. 1, RA1 or RA2) for communicating IP packets with one of packet nodes (see FIG. 1, SGSN1 or SGSN2), each of which is connected to an IP network (see FIG. 1, GPRS backbone network 13 is the IP network; see col. 2, lines 1-2) and has a foreign agent function (see FIG. 1, either RA1 or RA2 can have foreign network/agent depending on the movement of mobile station), comprising:

a first communication interface for connection to a radio base station (see FIG. 1, an interface that connects to BTS2/BTS1),

a second communication interface for communication with a plurality of packet nodes connected to the IP network (see FIG. 1, an interface that connects to GPRS backbone network for communication with SGSN nodes), and

a control unit (see FIG. 1, a combined controller/management system of BSC1/BSC2 and SGSN1/SGSN2) connected to the first and second communication interfaces,

wherein the control unit selectively requests one of the packet nodes selected (see FIG. 3, step 1, MS's requests is pass-through to a new selected SGSN; see col. 9, lines 56-67) in accordance with a communication state of a mobile station connected to the radio base station via a radio channel (see FIG. 1, when MS moves from RA1 to RA2, a mobile unit must connect to BSC2 via radio channel; see col. 9, lines 29-34) to establish a new logical connection

to be used for IP packet communication (see FIG. 3, step 9, updating/establishing a new logical link with a new TLLI, logical Link identity) between the mobile station and the packet node (see col. 10, lines 50-58), or

to transfer IP packets for the mobile station to the base station controller using a logical connection established between the mobile station and the packet node, via the second interface (see FIG. 3, step9; note that it is well known in the art that by using new established/updated logical link, the combined controller/management system must transfer the packets between the mobile unit and SGSN2 via the interface that connects to GPRS backbone network; see col. 9, lines 3-14).

Mustajarvi does not explicitly to transfer IP packets for the mobile station using a previous of a logical connection having been established between the mobile station and the

packet node. La Porta'359 discloses the transfer IP packets for the mobile station (see FIG. 2, MD 114) using a previous of a logical connection (see col. 9, lines 10-15; use of existing IP address and tunnel) having been established between the mobile station and the packet node (see FIG. 2, Domain 1, Router 150; see FIG. 3, step 180 and 182; see col. 3, lines 1-3; see col. 10, lines 45-67; note the mobile device selectively/exclusively uses the earlier/previous logical connection with COA and tunneling which has been established between router 150 and the mobile station). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize earlier/previous logical connection with COA and tunneling, as taught by La Porta'359 in the system of Mustajarvi, so that it would will reduce the disruption during handoff and reduce the amount of control traffic by utilizing the existing logical connection with COA; see col. 2, lines 15-25; see B col. 10, line 19-35.

Regarding claims 2 and 9, Mustajarvi discloses means for selecting, when a mobile station has moved into a control area of the base station controller from another radio access network (see FIG. 1, MS moves from RA1 to the selected control area of BSC2 of RA2; see col. 9, lines 29-34), to request the packet node to transfer IP packets for the mobile station to the base station controller using said identifier of the logical connection established (see FIG. 3, step 1, requesting to establish a new logical link with a new TLLI, logical Link identity for IP packet transmission for mobile station via BSC/SGSN; see col. 10, lines 50-58).

La Porta discloses selecting a first packet node (see FIG. 2, Router 150) which has been communicating with the mobile station (see FIG. 2, MD 114) in the another radio access network (see FIG. 2, domain 1), to request the first packet node to transfer IP packets for the mobile station to the base station using said previous logical connection having been

established (see FIG. 3, step 176; see col. 10, lines 46-56; note that care-of-address (COA) is requested from the domain 2 in order to communicate/transfer Internet data/packets between router 150 of domain 1 and mobile device utilizing the tunneling method with the existing/first logical/IP connection.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Mustajarvi as taught by La Porta for the same reason stated in Claims 1 and 8 above.

Regarding claims 3 and 11, Mustajarvi discloses means for monitoring communication packets for the mobile station which is communicating with said first packet node (see col. 9, lines 34-54; note that combined control/management system monitors/detects packet communication between a mobile station and each SGSN so that it can perform the cell and routing updates); and

means for switching a first logical connection having been established between the mobile station and the first packet node (see FIG. 3, step 1, see col. 10, lines 1-5; note the an existing/old logical link, TTLI, between MS and old BSC1/SGSN1 is updated by re-routing/switching) to a logical connection which is established between the mobile station and a second packet node preliminarily related to the base station controller (see FIG. 3, step 9, see col. 10, lines 50-57; note the an existing/old logical link, is updated/replaced by new/updated logical link, TTLI, between MS and new BSC2/SGSN2) when it is detected by the monitoring means that the transmission of communication packets for the mobile station is stopped (see col. 9, lines 44-50; note the transmission of packets for the mobile station from RA1 is stopped since the mobile is moved into RA2).

Regarding Claim 5, Mustajarvi discloses the base station controllers as described above in claim 1. Mustajarvi further discloses Radio access network 1 (i.e. RN1) is the home network and RN2 is the foreign network (see FIG. 1).

La Porta disclose wherein each of said plurality of packet nodes has a foreign agent function (see FIG. 2, R6 has a foreign function) for transferring an IP packet received from a home agent node (see FIG. 2, Router 150) connected to the IP network (see FIG. 2, Internet 100) to any of the base station (see FIG. 2, BS8); see col. 2, lines 61 to col. 3, lines 9).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Mustajarvi as taught by La Porta for the same reason stated in Claim 1 above.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta (U.S. 6,654,359) in view of Haumont (U.S. 6,233,458).

Regarding Claim 6, La Porta discloses a method of switching a connection for communication between a mobile station (see FIG. 2, a mobile device, MD 114) connected to any of a plurality of radio access networks (see FIG. 2, Domains 1 and 2 networks) via a radio link and a plurality of packet nodes (see FIG. 2, Routers R4, R150, R6) connected to an IP network (see FIG. 2, Internet 100), comprising:

a step of establishing a first logical connection to be used for IP packet communication (see FIG. 3, establishing a logical/IP connection for Internet/IP commutation; see FIG. 3, step 174 and 178) between a mobile station connected to a first radio access network (see FIG. 2, a mobile device 114 and Domain 1) and a first packet node (see FIG. 2,

Art Unit: 2661

Router 150) which is preliminarily related with the first radio access network (see FIG. 3, step 174 and 178; see col. 10, lines 36-45; note that a mobile device establishes a first logical/IP connection to domain 1);

a step of connecting the mobile station to a second radio access network (see FIG. 2, Domain 2) adjacent to the first radio access network when the mobile station moves into an area of the second radio access network (see FIG. 2, MD 114 moves into Domain 2; see col. 3, lines 15-29; note that a handoff from domain 1 to domain 2 is triggered for a connection when MD moves into domain 2); and

a step of requesting from the second radio access network to the first packet node to communicate IP packets for the mobile station with the second radio access network while maintaining the first logical connection (see FIG. 3, step 176; see col. 10, lines 46-56; note that MD requests care-of-address (COA) from the domain 2 in order to communicate Internet data/packets with router 150 utilizing the tunneling method, thereby, maintaining the existing/first logical/IP connection);

wherein IP packets are communicated between the mobile station and the first packet node using the first logical connection via the second radio access network (see FIG. 2, domain 2) without establishing a second logical connection between the mobile station and a second packet node (see FIG. 2, R6) which is preliminary with the second radio access network until communication of IP packets is ceased (see FIG. 3, step 180 and 182; see col. 3, lines 1-3; note the Internet packets are routed from the mobile device to the router 150 of domain 1 with COA, thereby, using the existing/first logical connection without the

establishing the second connection between MD 114 and R6 until IP communication stop.

Note that COA and tunneling is performed until the communication is stopped).

La Porta does not explicitly disclose an identifier of the logical connection. However, utilizing an identifier of the logical connection is well known in the art. Haumont discloses utilizing an identifier of the logical connection (see FIG. 5, logical link identify, TLLI, and routing area, RA; see col. 2, lines 31-35; see col. 5, lines 19-24). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize TLLI and RAI in order to identify the link, as taught by Haumont, in the system of La Porta, so that it would unambiguously identify the link/connection within one routing area; see Haumont col. 2, line 35-40, see col. 3, lines 62-65; see col. 5, lines 19-23.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta in view of Haumont, as applied to claim 6 above, and further in view of Dynarski (U.S. 6,272,129).

Regarding claim 7, La Porta discloses the first logical connection to be used for IP packet communication between the mobile station and a second packet node (see FIG. 2, Router R6) via the second radio access network as described in claim 6 above. La Porta further discloses said second packet node being preliminarily related with the second radio access network (see FIG. 2, Router R6 is in the domain 2, thus, the router is initially/preliminarily related to the domain 2).

La Porta does not explicitly discloses a step of closing, upon detecting that data transmission and reception ceased, the first logical connection and establishing the new logical connection (see Dynarski'129 col. 15, line 12 to col. 16, lines 4; note that the first/current logical PPP connection is closed when either the mobile station drops/ceases

Art Unit: 2661

PPP connection (i.e. no data is transmitted/received) and/or inter-IWU handover occurs.

When inter-IWU handover occurs, the new logical PPP connection is established.)

However, this limitation is taught by Dynarski'129. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of La Porta and Haumont, as taught by Dynarski'129 for the purpose of closing the current connection and re-establishing a new connection due to transmission termination, since Dynarski'129 states that it will provide a mechanism to utilize a same IP address assigned to the mobile after moving, see col. 16, lines 1-4. The motivation being that by closing one connection and re-establishing a new connection with the same IP address, it can increase the security and consistency since the same IP address will be assigned to the mobile.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mustajarvi and La Porta as applied to claim 8 above, and further in view of Schmidt (U.S. 5,682,416).

Regarding claim 10, Mustajarvi discloses wherein said control unit has means for notifying one of said radio access networks of identification information of a previous packet node which has been communicating with the mobile station (see FIG. 3, step 1; see col. 10, lines 1-15; note that a combined controller/management system notifies the old radio network regarding the old routing node/area ID of the old packet node which has been communication with the mobile station) when the mobile station moved out from the control area of the base station controller to a control area of the radio access network (see FIG. 1, when mobile station moves from the area controlled/managed by an old combined controller/management

system (i.e. a system that includes BSC1 of RA1) to an area controlled/managed by a new combined controller/management system of the RA2; see col. 9, lines 20-65)

Neither Mustajarvi nor La Porta explicitly discloses notifying a base station controller in one of said radio access networks. However, notifying a base station controller in one of said radio access networks when a mobile station moves from one radio access network to another is well known in the art. In particular, Schmidt discloses a base station controller (see FIG. 1, BSC 30 in source radio network) comprises a control unit (see FIG. 1, Processor 34 and controller 32) has means for notifying a base station controller in one of said radio access network (see FIG. 1, BSC 40 in target Radio network and see FIG. 3, link 25) of identification information (see FIG. 3 C-E, a soft handover; see col. 4, lines 41-50; identify of the inter-BSC circuit and pilot channel for soft handover). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to communicate between source and target BSC for a soft handover, as taught by Schmidt, in the combined system of Mustajarvi and La Porta, so that it would provide continuous communication without significant disruption in service in order to provide a smooth handover; see col. 2, line 15-31, 45-60.

Allowable Subject Matter

12. Claim 4 and 12 would be allowable if rewritten to overcome claim objections set forth in section 3 of this office action.

Response to Arguments

13. Applicant's arguments with respect to claims 1-3,5, and 6-11 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 1-3,5,6-11, the applicant argued that, "...Mustajarvi fails to teach or suggest that each base station controller in the radio access network is connected to a plurality of packet nodes through a network..." in page 14, 2nd paragraph.

In response to applicant's argument, the examiner respectfully disagrees that Mustajarvi fails to teach or suggest that each base station controller in the radio access network is connected to a plurality of packet nodes through a network. Mustajarvi discloses each of the base station controllers in the radio access network (see FIG. 1, BSC1 and BSC2 in RNs) is connected to the plurality of packet nodes (see FIG. 1, SGSN1 and SGSN2; see col. 8, lines 1-6; note that BSC1/BSC2 can connect to plurality of SGSNs).

Note that as per col. 8, lines 1-6, the radio network can be built with plurality of BSCs and SGSNs. The actual network is not limited to the number of BSCs and SGSNs shown in FIG. 1. Thus, it is clear that each BSC connects to plurality of SGSNs, and vice-versa. For example, as shown in the FIG. 1, MSC connects to both BSCs and SGSNs. Thus, it is clear that BSC2 connects to SGSN2 (directly) and SGSN1 (indirectly via MSC). Also, note that a network is formed when two or elements are coupled/connected.

The applicant argued that, "...Mustajarvi or La Porta fails to teach or suggest that IP packet communication for the mobile station is selectively carried out between the base station controller and the previous packet node using a previous identifier of a logical

connection having been established between the previous packet node and the mobile station, or between the base station controller and the specific packet node using an identifier of a new logical connection established between the selected specific packet node and the mobile station depending on the communication state of the mobile station..." in page 14, 3rd paragraph and page 15, 4th paragraph.

In response to applicant's argument, the examiner respectfully disagrees

Mustajarvi or La Porta fails to teach or suggest that IP packet communication for the mobile station is selectively carried out between the base station controller and the specific packet node using an identifier of a new logical connection established between the selected specific packet node and the mobile station depending on the communication state of the mobile station, or

between the base station controller and the previous packet node using a previous identifier of a logical connection having been established between the previous packet node and the mobile station.

Mustajarvi discloses, the underline portion, selectively carryout IP packet communication for the mobile station between the base station controller and the specific packet node using an identifier of a new logical connection (see col. 10, lines 50-58) established between the specific packet node and the mobile station depending on the communication state of the mobile station (see FIG. 3, step 9, note that IP packets transmission is performed by utilizing the updated/established a new logical link with a new TLLI, logical Link identity for IP packet transmission for mobile station via BSC/SGSN between a new SGSN 2 and the mobile station; see col. 10, lines 50-58). La Porta discloses,

the italic portion, La Porta'359 discloses an IP network (see FIG. 2, Internet 100) to which a plurality of nodes for transferring IP packets (see FIG. 2, Root router 150, R4-R6; see col. 7, lines 63 to col. 8, lines 41); selecting the previous packet node (see FIG. 2, Domain 1, Router 150) in accordance with a communication state of the moved mobile station (see FIG. 2, after MD 114 moves into destination/selected domain 2), thereby to carryout IP packet communication for the mobile station between the station (see FIG. 2, BS8) and the previous node (see FIG. 2, Root router 150) using a previous identifier of a logical connection (see col. 9, lines 10-15; use of existing IP address and tunnel) having been established between the previous node and the mobile station (see FIG. 3, step 180 and 182; see col. 3, lines 1-3; see col. 10, lines 45-67; note the mobile device selectively/exclusively uses the earlier/previous logical connection with COA and tunneling which has been established between router 150 and the mobile station).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As noted above, the claimed recites two scenario, Mustajarvi discloses the first and La Porta the second. Thus, the combined system of Mustajarvi and La Porta discloses first scenario or second scenario as recited in the claims.

The applicant argued that, "...La Porta fails to teach or suggest that each base station controller in the radio access network is connected to a plurality of packet nodes through a network..." in page 15, 3rd paragraph.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The claimed limitations are disclosed by Mustajarvi as recited above. Thus, the combined system of Mustajarvi and La Porta discloses the claimed limitations.

In response to applicant's regarding the official notice on page 16 (3rd paragraph) and page 17 (1st paragraph), **the examiner** has now discloses new references Haumont (U.S. 6,233,458) and Schmidt (U.S. 5,682,416).

The applicant argued that, regarding claim 7, "...there is no teaching Dynarski with respect to a **handover** to be carried out when a mobile station moves into a **control area of a base station** from a **control area of another base station controller**..." in page 17, 2nd paragraph.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **a handover, a control area of a base station, a control area of another base station controller**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In view of the above, **the examiner respectfully disagrees** with applicant's argument and believes that the combination of references as set forth in the 103 rejections is proper and

Art Unit: 2661

the combined system still disclosed the claimed invention for at least the reasons discussed above.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 571-272-3085. The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM
11/17/04



**BRIAN NGUYEN
PRIMARY EXAMINER**